

HERPES SIMPLEX AND SECOND DEGREE BURN INDUCED UNDER HYPNOSIS

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Despite the existence of a growing body of literature concerning skin changes induced under hypnosis, reports of this type still meet with some degree of skepticism among medical men. Dunbar(1) surveyed the literature from 1910 to 1933 dealing with the psychogenicity of various dermatological disorders. Pattie(3), in his review of the literature on the production of blisters under hypnosis from 1885 to 1940, states that "in the last 55 years there have only been ten articles written in which investigators have reported the formation of blisters and given a reasonably full account of their procedure and control of the subject." He concludes that further experimental findings are needed to fully establish the phenomenon. Only by the reporting of *bona fide* experiments carried out under careful test conditions can skepticism be dispelled and the way paved for more fruitful investigation. It is with this in mind that the following report is submitted.

CLINICAL REPORT

The patient was a 27-year-old soldier of Swiss nativity. His past history was essentially negative for any physical disorders. Prior to the present episode he had never experienced any overt neurotic difficulties. In civilian life he earned his living as a circus parachutist. When the war broke out in Europe he volunteered in the French Army and fought for a time in Africa. He suffered a bayonet wound in his right wrist in an encounter with an Arab. He came to the United States in 1941 and soon thereafter enlisted in the American Army.

The history of his present illness had to be reconstructed from the information on his medical record. He stated that on December 21, 1944, he became blind immediately following an explosion of a shell not very far distant from him. He was taken to a clearing

company where the only pertinent information noted was that he was suffering from a bilateral loss of vision, probably as a result of a nearby shell explosion. He was then transported to an evacuation hospital, December 27, 1944. Here it was noted that the original injury occurred at 0700, December 21, 1944, in the vicinity of Bastogne, Belgium, following the explosion of an enemy phosphorus shell. The diagnosis was changed to hysterical blindness although it was felt that optic neuritis should be ruled out. The patient was sent to a field hospital, December 29, 1944, and to a general hospital in the Paris area January 1, 1945, where the present studies were carried out. He was admitted to the eye service. The ophthalmologist concurred in the diagnosis of hysterical blindness, bilateral, and the patient was transferred to the neuropsychiatric ward, January 3, 1945. General physical and neurological examinations were negative except for the functional loss of vision.

Hypnosis was attempted successfully on the day of admission to the ward. The procedure was as follows: The patient was asked to sit back in a comfortable chair in a relaxed position and with eyes closed. He was then given repeated suggestions pertaining to sleep. After twenty minutes he appeared to be in hypnotic trance and was made to re-enact his recent battle experience. At the first suggestion that he was again on the battle field there was a sudden change in his demeanor. He became extremely tense, grasped the arms of the chair and began to writhe backward, as if in an effort to seek cover. When told that the shell was exploding he tried to lunge toward the floor. At this point the examiner made an effort to terminate in gradual fashion the abreaction and to lend reassurance. The patient was repeatedly told that he was completely cured and had fully regained his vision. At the termination of this first hypnotic session he was able to see normally for the first time since the onset of his illness. He recalled nothing

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of what had happened during the treatment and was quite amazed at his ability to see again.

At subsequent hypnotic sessions the procedure was essentially the same except that the time for induction was gradually reduced so that after the third trial the patient went under in a minute or less. All the sessions were characterized by complete amnesia for events which occurred while under hypnosis.

The experiments to be described were carried out in the presence of at least one other medical officer and more often two or three in addition to the ward nurse. On January 8, 1945, while under hypnosis, a second degree burn was induced on the dorsum of the patient's left hand in the following manner: Both hands were carefully examined and no abnormality was noted. The patient was again made to re-enact his battle experience, and at the point where the shell exploded he was told that a small particle of molten shell fragment glanced off the dorsum of his hand. Coincident with this, the examiner gently brushed the dorsum of the patient's hand with a small flat file (of the type commonly used in opening ampules). The file was at room temperature. There was immediate pallor in a circumscribed area about one centimeter in diameter at the point where the file made contact with his hand. After a period of twenty minutes a narrow red margin gradually developed about the area of pallor. Hypnosis was terminated at this point. On awakening, the patient appeared puzzled and asked if he had been smoking while asleep. He complained of pain in his hand and said that he felt as if he might have burned himself with a cigarette. One hour after the suggestion had been given early blister formation was noted. The patient had remained under the observation of the author and another medical officer (Major Laven) for this entire period of time. The patient was then dismissed and from the window of the office the examiner noted the following: The patient left the building to go to the mess hall. He stepped outside, picked up a handful of snow from the ground, and proceeded to rub it on the burn in an apparent effort to relieve the pain. The patient was examined in the afternoon,

approximately four hours after the initial suggestion had been given. At this time a full blister about one centimeter in diameter was noted. The patient was not under observation from the time he left the ward to the time of his return that afternoon. When questioned on his return, he could recall nothing relevant to the experiment other than the incident just described in which he applied a handful of snow to his hand. He said he did this just once, and kept the snow on his hand for only a few seconds. The following day the superficial skin had sloughed off, leaving a raw, denuded area beneath. This healed completely in the course of the following three days without leaving a scar.

On the day following the above experiment hypnosis was again induced in the presence of several members of the medical and surgical staff. While in hypnotic trance the patient was told that whereas his right hand would remain normal, his left hand would be completely anesthetic and also completely drained of blood. With a calibrated stylet of the type commonly used in taking blood counts and with the blade drawn up for maximum depth, one of the members of the medical staff stuck the middle finger of the patient's right hand. The patient winced, drew back, and droplet formation of blood immediately occurred. The same finger of the left hand was then punctured in exactly the same manner. The patient showed no signs of pain and seemed completely unaware of what had been done to him. In addition, no blood emerged from the puncture site.

During this same hypnotic session the patient was told that in the course of the next twenty-four hours fever blisters would form about his lower lip in the right-hand corner. This was accompanied by repeated suggestions to the effect that he appeared somewhat rundown and debilitated as a result of his recent experience. He was also told that he felt as if he were catching cold. At the time there were no evidences of any respiratory or other infection, nor of any incipient herpes or other lesions about the mouth. On the following morning, twenty-four hours later, there were multiple small blisters about the lower lip in the right-hand corner. The occurrence of one large blister and satellite smaller blisters at the mucocutaneous junc-

tion resembled an ordinary herpes in every way. The skin consultant who saw the patient at this time without knowing the history made a diagnosis of herpes simplex. During this twenty-four hour period, the patient remained on the ward and was at all times under the observation of the ward nurse or wardmen. He was not aware that the herpes was in any way related to the session of the previous day.

The burn effect on the hand simulated a true burn more closely than an urticarial wheal in the time it took to develop and the subsequent necrosis and sloughing off of epithelial tissue. With regard to this experiment, it should be pointed out again that the patient was not under observation from the time he left the physician's office to go to the mess hall up to the time of his return to the ward that afternoon. There is therefore only his word for the fact that he was unaware of the nature of the experiment and that he in no way attempted to induce a self-inflicted lesion. The observers noted the appearance of an early blister prior to the time the patient left the building. It was not felt that the application of the snow had any effect on the appearance of the full blister, although the possibility must be recognized that had the patient applied snow more vigorously or more often than he admitted, the physical trauma might have hastened the full development of the blister. The vasomotor control illustrated when the skin was punctured without ensuing bleeding is a well-known phenomenon capable of being elicited in many hypnotic subjects. The occurrence of what appeared to be a true herpes simplex (biopsy and histologic examination were impracticable at the time) is of interest.

It is felt that a definite affective change was brought about as a result of the suggestion that the patient was feeling tired, run-down and out-of-sorts, and that this was a necessary concomitant for the development of the herpes. This is in accord with Hull's (2) report of an experiment in which the herpetic blisters were induced in the hypnotic state by suggestion of an emotionally unpleasant experience in addition to direct suggestions concerning the herpes.

Whereas it is true that the explanation of these effects, particularly the blister forma-

tion and occurrence of herpes, is obscure, the author nevertheless feels that there is sufficient evidence to warrant acceptance of their production under hypnosis as a fact. In our present state of knowledge of neurophysiology it is difficult to speculate as to the mechanisms involved. There are many details lacking in the story of how the affect induced under hypnosis is interpolated at the various levels of integration of the central nervous system and exerts a specific effect on a circumscribed peripheral area. That the effect may be the result of antidromic impulses carried by posterior root fibers resulting in the liberation of H substances and wheal formation sheds little light on our understanding of the basic process. It is felt that further use should be made of the hypnotic technique as an experimental means of gaining insight into the relationship of psychic and physical processes.

SUMMARY

A 27-year-old combat soldier was admitted to a general hospital overseas because of hysterical blindness. He proved to be a good hypnotic subject and vision was restored after one session. In a subsequent hypnotic session a second degree burn with blister formation was induced on the dorsum of one hand. The blister was noted at the end of one hour and was fully developed approximately four hours later. A herpetiform lesion, clinically similar in all respects to a true herpes simplex, was made to appear in a specified area about the mouth twenty-four hours after the suggestion was given under deep hypnosis. In both instances there was an attempt made to induce affective changes in addition to the direct suggestions given. Under hypnosis it is possible to demonstrate an inter-relationship between the psychic processes and localized peripheral effects which far transcends the ability of the individual in the conscious state.

BIBLIOGRAPHY

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